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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/698,278 10/30/00 LEGER

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HONEYWELL INTERNATIONAL INC.  
101 COLUMBIA ROAD  
P O BOX 2245  
MORRISTOWN NJ 07962-2245

EXAMINER

TRAN, D

ART UNIT

PAPER NUMBER

3661

DATE MAILED:

10/23/01

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

**Office Action Summary**

Application No.

09/698,278

Applicant(s)

LEGER ET AL.

Examiner

DALENA TRAN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 October 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10/30/00 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3 6) ☐ Other: \_\_\_\_\_

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## DETAILED ACTION

### Notice to Applicant(s)

1. This application has been examined. Claims 1-39 are pending.
2. The prior art submitted on 3/7/01 has been considered.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

4. Claims 1-5,24-30,32-35, and 38-39, as understood by examiner, are rejected under 35 U.S.C.102(b) as being anticipated by Crabill et al. (5,265,024).

As per claim 1, Crabill et al. disclose an apparatus for providing weather information onboard an aircraft, comprising: a processor unit which processes weather information after it is received onboard the aircraft from a ground-based source (see the abstract; and columns 4-5, lines 49-5), and a graphical user interface provides a graphical presentation of the weather information to a user onboard the aircraft, and includes one or more user selectable options for graphically displaying at least one of convection information, turbulence information, icing information,

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weather satellite information, SIGMET information, significant weather prognosis information, and winds aloft information (see columns 8-9, lines 1-21).

As per claims 2 and 3, Crabill et al. disclose the graphical user interface includes a user selectable option that allows the user to request specific weather information, and what weather information for transmission from the ground-based source to the aircraft (see columns 3-4, lines 56-8).

As per claims 4 and 5, Crabill et al. disclose the graphical user interface includes a user selectable option for displaying the weather information in cross-sectional view along a route of the aircraft, and allows the user to view multiple types of weather data simultaneously (see columns 9-11, lines 22-10).

As per claims 24,28,32, and 35, Crabill et al. disclose a method of providing weather satellite information, SIGMET information, significant weather prognosis information, and winds aloft information to an aircraft, comprising: collecting and transmitting the weather satellite information, SIGMET information, significant weather prognosis information, and winds aloft information from the data center to an aircraft (see column 3, lines 23-55; and columns 5-7, lines 5-8), and graphically displaying the weather satellite information, SIGMET information, significant weather prognosis information, and winds aloft information onboard the aircraft (see column 7, lines 9-68; and columns 11-12, lines 11-3).

As per claim 25, Crabill et al. disclose the weather satellite information that is graphically displayed onboard the aircraft is altitude based (see columns 8-9, lines 1-21).

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As per claims 26-27,29-30,33-34, and 38-39, Crabill et al. disclose the weather satellite information, SIGMET information, significant weather prognosis information, and winds aloft information is transmitted from the data center to the aircraft via a telephony, or a satellite communication link (see columns 2-3, lines 58-21).

5. Claims 6-7, as understood by examiner, are rejected under 35 U.S.C.102(b) as being anticipated by Cline et al. (4,642,775).

As per claim 6, Cline et al. disclose an apparatus for providing weather information onboard an aircraft, comprising: a processor unit which processes weather information after it is received onboard the aircraft from a ground based source (see columns 1-2, lines 65-58; and columns 4-5, lines 13-13), and a graphical user interface provides a plan view of the weather information and position of the aircraft to a user onboard the aircraft, and includes a user selectable option for centering the plan view on the position of the aircraft (see columns 6-7, lines 47-68).

As per claim 7, Cline et al. disclose the a user selectable option for orienting the plan view so that the aircraft track points upward (see columns 9-10, lines 25-69).

6. Claims 8,14-23, as understood by examiner, are rejected under 35 U.S.C.102(e) as being anticipated by Zheng et al. (6,184,816).

As per claim 8, Zheng et al. disclose an apparatus for providing weather information onboard an aircraft, comprising: a processor unit processes weather information, including three-dimensional weather information, after it is received onboard the aircraft from a ground based

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source (see columns 14-15, lines 25-24; and column 17, lines 17-27), and a graphical user interface provides a plan view of the weather information for a selected altitude to a user onboard the aircraft; and includes a user selectable option for changing the selected altitude (see columns 12-14, lines 45-14; and columns 15-16, lines 24-29).

As per claims 14 and 19, Zheng et al. disclose a method of providing turbulence and icing information to an aircraft, comprising: collecting, and transmitting turbulence and icing information from the data center to an aircraft (see columns 4-5, lines 60-23; and column 6, lines 10-65), and graphically displaying the turbulence and icing information onboard the aircraft (see columns 16-17, lines 30-16; and column 17, lines 28-48).

As per claims 15 and 20, Zheng et al. disclose the turbulence and icing information that is graphically displayed onboard the aircraft includes information regarding turbulence and icing observations (see columns 8-9, lines 15-17).

As per claims 16 and 21, Zheng et al. disclose the turbulence and icing information that is graphically displayed onboard the aircraft includes information regarding turbulence and icing forecasts (see columns 7, lines 29-67; and column 9, lines 18-48).

As per claims 17-18, and 22-23, Zheng et al. disclose the turbulence and icing information is transmitted from the data center to the aircraft via a telephony, or a satellite communication link (see column 8, lines 1-14).

7. Claims 9-11, as understood by examiner, are rejected under 35 U.S.C.102(e) as being anticipated by Bateman et al. (6,043,756).

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As per claim 9, Bateman et al. disclose a method of providing convection information to an aircraft, comprising: collecting and transmitting the convection information from the data center to an aircraft (see column 2, lines 12-41), and graphically displaying the convection information onboard the aircraft (see column 2, lines 43-65; and columns 3-4, lines 32-10).

As per claims 10-11, Bateman et al. disclose the convection information that is graphically displayed onboard the aircraft includes information regarding convection activity observations and convection forecasts (see columns 2-3, lines 67-31).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 36-37, as understood by examiner, are rejected under 35 U.S.C.103(a) as being unpatentable over Crabill et al. (5,265,024) in view of Cline et al. (4,642,775).

As per claims 36-37, Crabill et al. do not mention information regarding winds aloft observation and winds aloft forecasts. However, Cline et al. mention the winds aloft information that is graphically displayed onboard the aircraft includes information regarding winds aloft observation and winds aloft forecasts (see columns 12-14, lines 48-53). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach

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of Crabill et al. by mention information regarding winds aloft observation and winds aloft forecasts for obtaining accurate weather information for the flight planning system.

10. Claims 12-13, as understood by examiner, are rejected under 35 U.S.C.103(a) as being unpatentable over Bateman et al. (6,043,756) in view of Zheng et al. (6,184,816).

As per claims 12-13, Bateman et al. do not mention the convection information is transmitted from the data center to the aircraft via a telephony or a satellite communication link. However, Zheng et al. mention that (see column 8, lines 1-14). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Crabill et al. by mention the convection information is transmitted from the data center to the aircraft via a telephony or a satellite communication link to more accurately predict the convection information along the flight path of the aircraft.

11. Claim 31, as understood by examiner, are rejected under 35 U.S.C.103(a) as being unpatentable over Crabill et al. (5,265,024) in view of Zheng et al. (6,184,816).

As per claim 31, Crabill et al. do not mention the SIGMET information is graphically displayed in the form of geometric shapes representing areas affected by SIGMETs. However, Zheng et al. mention that (see column 17, lines 17-48). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Crabill et al. by mention the SIGMET information is graphically displayed in the form of geometric shapes representing areas affected by SIGMETs to provide sufficient warning area for the aircraft to avoid the significant bad weather effect.



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***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- . Thurman (4,706,198)
- . Marvin (5,781,195)
- . Wright et al. (6,173,159)
- . Foust (6,240,369)

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Dalena Tran, whose telephone number is (703) 308-8223. The examiner can normally be reached on Monday-Friday from 7:00 AM-4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Cuchlinski, can be reached on (703) 308-3873.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

(703) 305-7687, (for informal or draft communications, please label  
"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park V, 2451 Crystal Drive, Arlington, VA., Seventh Floor (Receptionist).

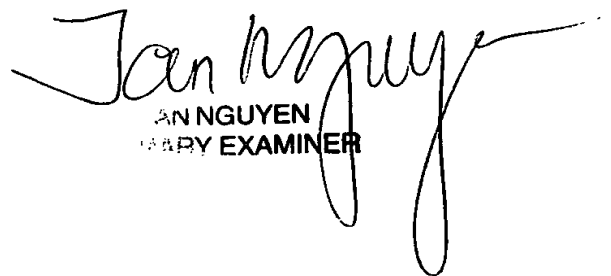
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Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-1113.

/dt  
October 15, 2001

  
JAN NGUYEN  
COPY EXAMINER